REMARKS

Applicant respectfully requests consideration of the subject application as amended herein. This Amendment is submitted in response to the Final Office Action mailed on January 28, 2004. Claims 1-20 are rejected. Claims 1, 11, 19, and 20 have been amended. No new matter has been added by this Amendment.

First, the Examiner rejected claims 1, 11, and 19-20 under 35 U.S.C. § 103(a) as being unpatentable over Smith, et al. (U.S. Patent No. 5,545,291, hereinafter "Smith"), in view of Suto, et al. (U.S. Patent No. 4,746,787, hereinafter "Suto").

With regard to claims 1, 19, and 20, Applicant's invention requires the blocks to be fabricated (or created) separately and then deposited into recessed regions on a first substrate, which is coupled to a second substrate. Smith taught a process of making the blocks and not the blocks fabricated separately and then deposited into recessed regions on the first substrate.

The Examiner stated that Smith teaches a first substrate (253 in Figure 4) coupled to a second substrate (257 in Figure 4) and the first substrate 253 comprising a plurality of display/driver/integrated circuit blocks 19 which are deposited onto the first substrate (Figure 1-7 and col. 5 lines 37-58, col. 6, line 15 through col. 8, line 10) of the Smith reference. Applicant respectfully disagrees.

As taught by Smith, none of the layer 253 or the layer 257 is a substrate that comprises a plurality of blocks. The layer 253 and layer 257 are both intermediate layers used or formed during the steps of forming and releasing the blocks 19. None of these layers end up in a device that comprises the blocks. The blocks 19 are formed as discussed below.

A gallium arsenide layer 17 is formed over a first substrate 10. As illustrated in

Figures 1-3 and column 5 of the Smith patent, after the layer 17 is formed on the substrate 10, masking and etchings steps are performed. "Generally, unexposed portions of gallium arsenide 17 are etched up to sacrificial layer 13 as illustrated in FIG 2. Such etching step provides a plurality of shaped gallium arsenide blocks 19." After the blocks 19 are formed (after masking and etching), the gallium arsenide layer 17 is no longer on the substrate 10. (Smith, col. 5, lines 45-58). After the blocks 19 are formed on the first substrate 10, they are removed by a lift-off technique and removed from the substrate 10. (Smith, col. 6, lines 15-35 and Figure 3).

The layer 253 is used in an alternative lift-off method to remove the blocks 19. The layer 253 is a wax layer that is later on removed to release the blocks 19. In particular, Smith taught that after the blocks 19 are formed by masking and etching of the layer 17, a wax layer 253 is spread over the top surface of the exposed portion of the sacrificial layer 13 and gap 255 between each block 19 (Figure 4). An intermediate layer 257 is then formed over the blocks 19 and the wax layer 253 as shown in Figure 4. The wax layer 253 allows the intermediate layer 257 to be formed over the blocks 19. Metalization can then be formed as shown in Figure 5. Thereafter, the wax layer 253 is dissolved to release the blocks 19 as stated in col. 7, lines 8-12.

Thus, as can be seen, Smith used the layer 253 and 257 in the process of making the blocks 19. Applicant's invention in claims 1, 19, and 20 requires the blocks fabricated separately and then be transferred to a first substrate where they are deposited into the first substrate, which is coupled to a second substrate. These elements are not taught in Smith.

Therefore, Smith alone or in combination with Suto cannot make obvious claims 1, 19, and 20.

With regard to claim 11, Smith alone or in combination with Suto also cannot make obvious claim 11. Claim 11 requires (with emphasis added)

> ...at least one pixel block deposited onto a substrate, said at least one pixel block connected to a pixel element;
> at least one interface block deposited onto said substrate;
> said at least one pixel block and said at least one interface block electrically coupled to form an active matrix backplane...

Smith as well as Suto did not teach these elements. In addition, both Smith and Suto did not teach that the pixel block and the interface block are deposited onto the same substrate as required by claim 11.

Second, the Examiner rejected claims 2-10, and 12-18 under 35 U.S.C. § 103(a) as being unpatentable over Smith, as modified by Suto as applied to claim 1 above, and further in view of Jacobsen, et al, (U.S. Patent No. 6,281,038, hereinafter "Jacobsen").

With regard to claims 2-10, as discussed above, Smith did not teach, suggest, or motivate the blocks to be fabricated (or created) separately and then deposited into recessed regions on a first substrate, which is coupled to a second substrate. Smith taught a process of making the blocks and not the blocks fabricated separately and then deposited into recessed regions on the first substrate.

With regard to claims 12-18, as discussed above, Smith as well as Suto did not teach that the pixel block and the interface block are deposited onto the same substrate as required by claims 12-18..

Thus, Smith, alone or in combination with Suto or Jacobsen cannot teach, suggest, or motivate the elements in claims 2-10 and 12-18.

As discussed above, the pending claims are patentable over the above references.

Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Mimi Diemmy Dao at (408) 720-8300.

Respectfully submitted,

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Dated: April 26, 2004

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